



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------------|------------------|
| 09/877,820 | 06/07/2001 | Avinash Jain | 010296 | 1176 |
| 23696 | 7590 | 11/01/2005 | | |
| QUALCOMM, INC 5775 MOREHOUSE DR. SAN DIEGO, CA 92121 | | | | |
| | | | EXAMINER LEE, ANDREW CHUNG CHEUNG | |
| | | | ART UNIT 2664 | PAPER NUMBER |

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/877,820

Applicant(s)

JAIN ET AL.

Examiner

Andrew C. Lee

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 9, 13 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bark et al. (US 6553235 B2) in view of Yao et al. (US 6097697).

Regarding Claims 1, 13, Bark et al. disclose the limitation of a method to determine a next data rate in a mobile station of a wireless system (Fig. 5, column 3, 66 – 67; column 4, lines 1 – 2; column 4, lines 11 – 14), comprising: receiving a congestion indicator (column 4, lines 18 – 20); Bark et al. do not disclose expressly generating the next data rate in the mobile station as a function of data rate history and history of congestion indicator of the mobile station. Yao et al. disclose the limitation of generating the next data rate as a function of data rate history and history of congestion indicator (column 2, lines 54 – 65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bark et al. to include a generating the next data rate in the mobile station as a function of data rate history and history of congestion indicator of the mobile station such as that taught by Yao et al. in order to provide features adjusting the transmission rate to the destination in response to a

Art Unit: 2664

combination of the derived statistics (as suggested by Yao et al., see column 2, lines 27 – 29).

Regarding Claims 2, 14, Bark et al. discloses the limitation of a method as in claimed wherein generating the next data rate further (Fig. 5, column 4, lines 11 – 14) comprises: comparing at least one previous data rate to a target data rate for the mobile station (column 9, claim 3, lines 33 – 34); and in response to a first result of comparing determining the next data rate by adjusting at least one data rate (column 9, lines 35 – 37).

Regarding Claim 3, Bark et al. discloses the limitation of a method of claimed wherein adjusting the at least one previous data rate performs a statistical analysis (Fig. 5B, column 5, lines 51 – 55).

Regarding Claims 4, 15, Bark et al. discloses the limitation of a method of claimed wherein generating the next data rate further comprises: counting a number of consecutive same value congestion indicators (Fig. 4, element P1, column 5, lines 1 – 3); and if the number of consecutive same value congestion indicators is less than a predetermined maximum number (column 5, lines 4 – 6), determining the next data rate by maintaining the at least one previous data rate (column 5, lines 49 – 58).

Regarding Claims 5, 16, Bark et al. discloses the limitation of a method as in claimed wherein generating the next data rate further comprises: if the number of consecutive same value congestion indicators is equal to or greater than the maximum number (column 6, lines 19 – 20), determining the next data rate by adjusting the at least one previous data rate (column 5, lines 49 – 58).

Regarding Claim 6, Bark et al. discloses the limitation of a method as in claimed wherein for a first congestion condition if the previous data rate is greater than the target data rate, adjusting comprises decreasing (column 5, lines 6 – 8; lines 49 – 58).

Regarding Claim 7, Bark et al. discloses the limitation of a method as in claimed wherein for a second congestion condition if the previous data rate is less than the target data rate, adjusting comprises increasing (column 5, lines 4 – 6; lines 49 – 58).

Regarding Claim 8, Bark et al. discloses the limitation of a method as in claimed wherein the next data rate is generated at the mobile station and is independent of other mobile stations (column 4, lines 7 – 10; column 5, lines 43 – 45).

Regarding Claim 9, Bark et al. discloses the limitation of a method as in claimed wherein the maximum number is predetermined (column 4, lines 47 – 51).

3. Claims 10 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Bark et al. (U.S. 6553235 B2) and Yao et al. (US 6097697) as applied to claims 1 – 9, 13 – 16 above in further view of Gilhousen et al. (U.S. 5603096).

Regarding Claim 10, Bark et al. discloses the limitation of a method to determine a next data rate in a mobile station of a wireless system (Fig. 5, column 3, 66 – 67; column 4, lines 1 –2; column 4, lines 11 – 14). Bark et al. and Yao et al. do not disclose expressly the method as in claimed wherein the congestion indicator comprises multiple bits. Gilhousen et al. discloses the limitation of the method as in claimed wherein the congestion indicator comprises multiple bits (column 5, lines 17 – 25). It would have been obvious to modify Bark et al. to include a method as in claimed wherein the congestion indicator comprises multiple bits such as that taught by Gilhousen et al. in order to provide a power and congestion control scheme that enables the mobile to operate using a 100% duty cycle while providing fast and accurate closed loop power control from the base station to the mobile unit.

Regarding Claim 11, Bark et al. disclose the limitation of a method to determine a next data rate in a mobile station of a wireless system (Fig. 5, column 3, 66 – 67; column 4, lines 1 –2; column 4, lines 11 – 14). Bark et al. and yao et al. do not disclose expressly a method as in claimed 10, wherein at least one of the multiple bits corresponds to a adjustment indicator, and at least one of the multiple bits corresponds a target indicator, the method further comprising: for a first value of the target indicator, adjusting at least one previous data rate according to the adjustment indicator; and for a second value of the target indicator, comparing at least one previous data rate to a

Art Unit: 2664

target rate for the mobile station, wherein in response to a first result of comparing determining the next data rate by adjusting at least one previous data rate according to the adjustment indicator. Gilhousen et al. discloses the limitation of a method as in claimed 10, wherein at least one of the multiple bits corresponds to a adjustment indicator (column 5, lines 17 – 19), and at least one of the multiple bits corresponds a target indicator (column 2, lines 64 – 67; column 3, lines 1 – 3), the method further comprising: for a first value of the target indicator, adjusting at least one previous data rate according to the adjustment indicator (column 5, lines 19 – 22; column 6, lines 33 – 46); and for a second value of the target indicator, comparing at least one previous data rate to a target rate for the mobile station (column 7, lines 33 – 35), wherein in response to a first result of comparing determining the next data rate by adjusting at least one previous data rate according to the adjustment indicator (column 7, lines 35 – 45). It would have been obvious to modify Bark et al. to include a method as in claimed 10, wherein at least one of the multiple bits corresponds to a adjustment indicator, and at least one of the multiple bits corresponds a target indicator , the method further comprising: for a first value of the target indicator, adjusting at least one previous data rate according to the adjustment indicator ; and for a second value of the target indicator, comparing at least one previous data rate to a target rate for the mobile station, wherein in response to a first result of comparing determining the next data rate by adjusting at least one previous data rate according to the adjustment indicator such as that taught by Gilhousen et al. in order to provide a power and congestion control

scheme that enables the mobile to operate using a 100% duty cycle while providing fast and accurate closed loop power control from the base station to the mobile unit.

Regarding Claim 12, Bark et al. disclose the limitation of a method to determine a next data rate in a mobile station of a wireless system (Fig. 5, column 3, 66 – 67; column 4, lines 1 – 2; column 4, lines 11 – 14). Bark et al. and Yao et al. do not disclose expressly a method as in claimed 11, wherein for a first value of the adjustment indicator adjusting at least one previous data rate according to the adjustment indicator comprises increasing at least one previous data rate, and wherein for a second value of the adjustment indicator adjusting at least one previous data rate according to the adjustment indicator comprises decreasing at least one previous data rate. Gilhousen et al. discloses the limitation of a method as in claimed 11, wherein for a first value of the adjustment indicator adjusting at least one previous data rate according to the adjustment indicator comprises increasing at least one previous data rate (column 7, lines 18 – 25), and wherein for a second value of the adjustment indicator adjusting at least one previous data rate according to the adjustment indicator comprises decreasing at least one previous data rate (column 7, lines 26 – 32). It would have been obvious to modify Bark et al. to include a method as in claimed 11, wherein for a first value of the adjustment indicator adjusting at least one previous data rate according to the adjustment indicator comprises increasing at least one previous data rate, and wherein for a second value of the adjustment indicator adjusting at least one previous data rate according to the adjustment indicator comprises decreasing at least one previous data rate such as that taught by Gilhousen et al. in order to provide a power and congestion

control scheme that enables the mobile to operate using a 100% duty cycle while providing fast and accurate closed loop power control from the base station to the mobile unit.

Response to Arguments

4. Applicant's arguments with respect to claims 1 – 16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2664

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL

Oct 27, 2005


Ajit Patel
Primary Examiner